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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,443	07/12/2005	Frederic Pepin	8470G-031/NP	2791
27572	7590	10/04/2006	EXAMINER	
HARNESSE, DICKEY & PIERCE, P.L.C.			LEE, GILBERT Y	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			3673	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/520,443

**Applicant(s)**

PEPIN, FREDERIC

**Examiner**

Gilbert Y. Lee

**Art Unit**

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/6/05</u> .  | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the upper and lower plate each including a pair of ribs in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. For the purposes of this examination, the examiner is interpreting the claim to be claiming a rib on each plate.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3673

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: E in para. [0031], line 4 and e1 in para. [0036], line 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: in para. [0034], line 2 "4" should be replaced with --44--.

Appropriate correction is required.

### ***Claim Objections***

4. Claim 2 is objected to because of the following informalities: --- should be added to the end of the claim. Appropriate correction is required.

Art Unit: 3673

5. Claim 6 is objected to because of the following informalities: reference characters "E", "e1", and "e2" should either be placed in parenthesis or be deleted from the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3, 5, 6, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, it is unclear to the examiner as to how the window is opposite the wires of the sensor. This is supported in para. [0035]. However, the drawings clearly show the window being containing the wires in the installed state. For the purposes of this examination, the examiner is interpreting the claim to be claiming a window in the base plate.

Regarding claim 3, it is unclear to the examiner as to what is being claimed as having a flat bottom and two branches. For the purposes of this examination, the examiner is interpreting the claim to be claiming the bridge having a flat bottom with two branches.

Regarding claim 5, it is unclear to the examiner as to how the bridge forms a projection in the window. The drawings depict the bridge being in the vicinity of the

Art Unit: 3673

window. For the purposes of this examination, the examiner is interpreting the bridge being a projection adjacent the window.

Regarding claim 6, it is unclear to the examiner as to how the stopper is opposite the base plate. The drawings clearly show the stopper to be inward towards the orifice from the base plate. For the purposes of this examination, the examiner is interpreting the claim to be claiming the stopper to be inward and towards the orifice from the base plate.

Regarding claim 9, it is unclear to the examiner as to what the spaces are filled with.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chujo et al. (US Patent No. 5,195,365).

Regarding claim 1, the Chujo reference, as best understood, discloses an arrangement of a multilayer cylinder head gasket (Fig. 1) comprising:

an upper plate (8) and a lower plate (9), each plate including a rib (Fig. 1);

a base plate (7c);

Art Unit: 3673

an intermediate plate(12) comprising a sensor (7) disposed in an immediate vicinity of an edge of a cylinder orifice (Fig. 1); and

wires (7b),

wherein a baffle (7d) is disposed between the base plate and the intermediate plate (Fig. 1).

Regarding claim 6, the Chujo et al. reference, as best understood, discloses a stopper (10) disposed between the ribs of the upper and lower plates (Fig. 1) wherein a height of the stopper is greater than a sum of the heights of the base plate and a height of the intermediate plate (Fig. 1).

Regarding claim 7, the Chujo et al. reference discloses the stopper comprising a seat (e.g. 10a), the seat being open on one side toward the cylinder orifice (Fig. 1) and comprising a passage (11).

Regarding claim 8, the Chujo et al. reference, as best understood, discloses a plurality of free spaces around the sensor in the seat being filled. Note that the free space will be filled with gas in the Chujo et al. reference.

Regarding claim 9, the Chujo et al. reference discloses the stopper being mounted so as to float relative to the upper and lower plates (Fig. 1). Note that parts of the element 10 are floating in reference to the upper and lower plates.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3673

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Note for the purposes of this examiner, the examiner is rotating Figs. 4 and 7 180 degrees.**

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Croset et al. in view of (US Patent No. 4,364,226).

Regarding claim 1, the Croset et al., as best understood, discloses an arrangement of a multilayer cylinder head gasket (Fig. 7) comprising:

an upper plate (3-1) and a lower plate (3-5),

a base plate (3-4);

an intermediate plate(3-3) comprising a sensor (1) disposed in an immediate vicinity of an edge of a cylinder orifice (Fig. 7); and

wires (2),

wherein a baffle (9) is disposed between the base plate and the intermediate plate (Fig. 7).

However, the Croset et al. reference fails to explicitly disclose the upper and lower plates including ribs.

The Chujo et al. reference, a sensing device for a combustion chamber, discloses the upper and lower plates including ribs (Col. 4, Lines 53-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide ribs to the Croset et al. reference in view of the teachings of the



Art Unit: 3673

Chujo et al. reference in order to increase gas-tightness (Chujo et al., Col. 5, Lines 39-40).

Regarding claim 2, the Croset et al. reference, as modified in claim 1, discloses the base plate comprising a window (e.g. center hole in Fig. 4) and the intermediate plate comprising a bridge (e.g. bridge on which element 2-1 lies on in Fig. 7) and two open windows (e.g. windows in which elements 1 and 9 rest in) disposed on each side of the bridge (Fig. 7).

Regarding claim 3, the Croset et al. reference, as modified, discloses the bridge being disposed so as to position itself above the wires passing along the baffle (Fig. 7) with a flat bottom (e.g. surface of element 3-3 in contact with element 3-4) and two branches (Fig. 7, e.g. the two branches extending from the bridge).

Regarding claim 4, the Croset et al. reference, as modified, discloses the thickness of the intermediate plate being greater than the thickness of the wires (Fig. 7) and the bridge being in a plane of the intermediate plate (Fig. 7).

Regarding claim 5, the Croset et al. reference, as modified and as best understood, discloses the thickness of the intermediate plate being approximately equal to the thickness of the wires (Fig. 7) and the bridge forming a projection (Fig. 7).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gilbert Lee whose telephone number is 571-272-5894. The examiner can normally be reached on 8:30 am to 5:00 pm.

Art Unit: 3673

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GL

September 27, 2006

A handwritten signature in black ink, appearing to read 'Patricia Engle', with a stylized flourish at the end.

Patricia Engle  
Supervisory Examiner  
Tech. Center 3600